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Jeffrey Engel, MD
State Health Director

September 26, 2011 (2 pages)

To: All North Carolina Health Care Providers
From: Megan Davies, MD, State Epidemiologist
Re: **2011–12 Influenza Season: Treatment Update for NC Clinicians**

This memo provides guidance to NC clinicians and information regarding flu surveillance activities in North Carolina. This guidance might change as the influenza season progresses; updated information is available at www.flu.nc.gov.

CLINICAL MANAGEMENT

- **Decisions regarding treatment should be based on clinical and epidemiologic information, rather than on test results.** Rapid tests cannot rule out influenza infection, and more time is required for other test types (e.g. PCR or viral culture). If clinically indicated, treatment should not be delayed while awaiting laboratory confirmation. Current epidemiologic information is available at www.flu.nc.gov.
- Certain patients are at increased risk for influenza-related complications. These include:
 - Children younger than 2 years old
 - Adults 65 years of age or older
 - Pregnant women and women up to 2 weeks postpartum
 - American Indians and Alaskan Natives
 - Persons with certain medical conditions including: Asthma; neurological and neurodevelopmental conditions; chronic lung diseases (such as COPD and cystic fibrosis); heart diseases (such as congenital heart disease, congestive heart failure and coronary artery disease); blood disorders (such as sickle cell disease); endocrine disorders (such as diabetes); kidney disorders; liver disorders; metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders); and weakened immune system due to disease or medication (such as people with HIV or AIDS, or cancer, or those on chronic steroids)
 - People younger than 19 years of age who are receiving long-term aspirin therapy
 - People who are morbidly obese (Body Mass Index, or BMI, of 40 or greater)
- Not all patients with suspected influenza infection need to be seen by a health care provider. Patients who report febrile respiratory illness but do not require medical care *and are not at high risk for complications of influenza* should be instructed to stay at home in order to decrease opportunities for transmission. Patients should seek emergency medical attention for any of the following:
 - Difficulty breathing or shortness of breath
 - Pain or pressure in the chest or abdomen
 - Sudden dizziness
 - Confusion
 - Severe or persistent vomiting
 - Flu symptoms that improve but then return with fever and worse cough
 - In babies, bluish gray skin color, lack of responsiveness, or extreme irritation.



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- Clinical judgment is an important factor in treatment decisions. Treatment is recommended as early as possible for individuals with suspected or confirmed influenza who have any of the following:
 - Illness requiring hospitalization,
 - Progressive, severe, or complicated illness, regardless of previous health status, or
 - Increased risk for severe disease (e.g. persons with certain chronic medical conditions, persons 65 or older, children younger than 2 years, and pregnant women).

Antiviral treatment also can be considered for any previously healthy, symptomatic outpatient not at high risk with confirmed or suspected influenza on the basis of clinical judgment, if treatment can be initiated within 48 hours of illness onset.

- If antiviral treatment is prescribed, a neuraminidase inhibitor (oseltamivir or zanamivir) should be used. Oseltamivir resistance among 2009 H1N1 influenza viruses has only occurred sporadically. If oseltamivir-resistant influenza viruses become prevalent (as during the 2008–2009 flu season), treatment with either zanamivir or a combination of oseltamivir plus rimantidine or amantidine might be necessary. Information regarding currently circulating flu strains is available at www.flu.nc.gov. Detailed antiviral use guidance- including testing and treatment for suspected oseltamivir-resistant influenza- is available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.
- **Treatment is most effective when started within 48 hours of illness onset. However, treatment of persons with prolonged or severe illness can reduce mortality and duration of hospitalization even when started more than 48 hours after onset of illness.**

Health care providers should contact their Local Health Departments or the Communicable Disease Branch for questions about influenza.

We will post updates with additional guidance as warranted on www.flu.nc.gov. Updates are also available from the CDC at www.cdc.gov/flu.



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